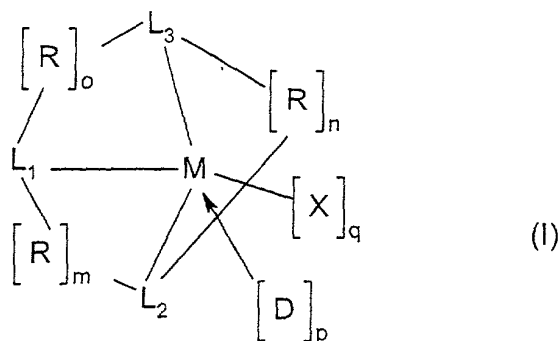


Abstract

1. The invention concerns olefin polymerization catalyst component comprising an organometallic compound of general formula I



wherein:

M is a transition metal of groups 3, 4-10, lanthanide or actinide of the periodic table of the elements; each **R** is independently a structural bridge rigidly connecting two ligands **L**₁, **L**₂ and **L**₃ and is constituted by 1 to 4 chain atoms selected from carbon, silicon, germanium, oxygen, boron; **m**, **n** and **o** are 0 or 1, with the proviso that **m**+**n**+**o** is 2 or 3; **L**₁ is a ligand of the cyclopentadienyl type or is isolobal to cyclopentadienyl, **L**₂ is a ligand of the cyclopentadienyl type or is isolobal to cyclopentadienyl, or a monovalent anionic ligand selected from the group consisting of N, P, B when **m**+**n**=2, it is selected from the group consisting of **NR**¹, **PR**¹, **BR**¹, O and S when **m**+**n**=1;

L₃ is a monovalent anionic ligand selected from the group consisting of N, P, B when **n**+**o**=2, it is selected from the group consisting of **NR**¹, **PR**¹, **BR**¹, O and S when **n**+**o**=1; **R**¹ is hydrogen, C₁-C₂₀ alkyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₃-C₂₀ alkenyl, optionally comprising 1 to 5 heteroatoms such as Si, N, P, O, F, Cl, Br; each **X** is independently selected from the group consisting of hydrogen, halogen, **NR**², **R**² with **R**² equal to C₁-C₂₀ alkyl, C₁-C₂₀ alkyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₃-C₂₀ alkenyl, optionally comprising 1 to 5 heteroatoms such as Si, N, P, O, F, Cl, Br; **q** is a number whose value is: 0, 1, 2 or 3, depending on the valence of the metal **M**; **D** is a neutral Lewis base, **p** is a number whose value is: 0, 1, 2 or 3.

The invention also concerns catalysts comprising compounds of formula (I) and the polymerization process making use of a catalyst comprising the claimed compounds.